

What is claimed is:

- 1           1.       A method comprising:  
2                    using active contours to detect image boundaries of a first view and a  
3       second view of a human face; and  
4                    marking a first set of fiducial points on the first view and a second set of  
5       fiducial points on the second view.
- 1           2.       The method of claim 1, including:  
2                    determining a first feature set using the first set of fiducial points, and  
3       determining a second feature set using the second set of fiducial points.
- 1           3.       The method of claim 2, further comprising:  
2                    normalizing distances in the first feature set in terms of a distance between  
3       two preselected fiducial points of the first set of fiducial points.
- 1           4.       The method of claim 1, wherein the active contours comprise snake  
2       contours and the first and second views comprise a front view and a side view.
- 1           5.       The method of claim 4, wherein the snake contours for the front view  
2       comprise at least two of a face boundary, an eye boundary, a brow boundary, a nose  
3       boundary, and a lip boundary.
- 1           6.       The method of claim 2, wherein the first feature set and the second feature  
2       set each comprise less than ten distances.

1           7.       The method of claim 2, further comprising storing the first feature set and  
2 the second feature set in a database.

1           8.       The method of claim 7, further comprising:  
2                   partitioning said database based on a feature vector of one of the first  
3 feature set and the second feature set.

1           9.       The method of claim 8, further comprising:  
2                   in response to a query image, querying the database using reference image  
3 content corresponding to the feature vector.

1           10.      A method comprising:  
2                   obtaining feature set information from a first view of a human face and a  
3 second view of the human face; and  
4                   storing the feature set information in a database having a hierarchical tree  
5 structure.

1           11.      The method of claim 10, wherein the database includes feature set  
2 information for a plurality of individuals.

1           12.      The method of claim 10, further comprising determining whether to store  
2 the feature set information in a first branch or a second branch of the hierarchical tree  
3 structure based upon a value in the feature set information.

1           13.      The method of claim 12, wherein the value corresponds to a metric  
2 distance function.

1           14.     The method of claim 11, further comprising searching the database for at  
2     least one search result corresponding to a query image.

1           15.     The method of claim 12, further comprising searching the first branch or  
2     the second branch for a search result corresponding to a query image based on a metric  
3     distance function of the query image.

1           16.     An article comprising a machine-readable storage medium containing  
2     instructions that if executed enable a system to:  
3             obtain feature set information from a first view of a human face and a second  
4     view of the human face; and  
5             store the feature set information in a database having a hierarchical tree structure.

1           17.     The article of claim 16, further comprising instructions that if executed  
2     enable the system to determine whether to store the feature set information in a first  
3     branch or a second branch of the hierarchical tree structure based upon a value in the  
4     feature set information.

1           18.     The article of claim 16, further comprising instructions that if executed  
2     enable the system to search the database for at least one search result corresponding to a  
3     query image.

1           19.     The article of claim 17, further comprising instructions that if executed  
2     enable the system to search the first branch or the second branch for a search result  
3     corresponding to a query image based on a metric distance function of the query image.

1           20.     A system comprising:  
2           a dynamic random access memory containing instructions that if executed enable  
3     the system to use active contours to detect image boundaries of a first view and a second  
4     view of a human face, and to mark a first set of fiducial points on the first view and a  
5     second set of fiducial points on the second view; and  
6           a processor coupled to the dynamic random access memory to execute the  
7     instructions.

1           21.     The system of claim 20, further comprising instructions that if executed  
2     enable the system to determine a first feature set using the first set of fiducial points, and  
3     determine a second feature set using the second set of fiducial points.

1           22.     The system of claim 21, further comprising instructions that if executed  
2     enable the system to store the first feature set and the second feature set in a database.

1           23.     The system of claim 22, further comprising instructions that if executed  
2     enable the system to partition the database based on a feature vector of one of the first  
3     feature set and the second feature set.

1           24.     The system of claim 22, further comprising a display coupled to the  
2     processor to display a query image and at least one search result image obtained from the  
3     database in response to a similarity query based on at least one feature vector.